

### Time and Time Again

Time and Time Again is one of the classroom routines included in the grade 2 *Investigations* curriculum. This routine helps students develop an understanding of time-related ideas such as sequencing of events, the passage of time, duration of time periods, and identifying important times in their day.

Because many of the ideas and suggestions presented in this routine will be incorporated throughout the school day and into other parts of the curriculum, we encourage teachers to use this routine in whatever way meets the needs of their students and their classroom. We believe that learning about time and understanding ideas about time happen best when activities are presented *over* time and have relevance to students' experiences and lives.

**Daily Schedule** Post a daily schedule. Identify important times (start of school, math, music, recess, reading) using both analog (clockface) and digital (10:15) representations. Discuss the daily schedule each day and encourage students to compare the actual starting time of, say, math class with what is posted on the schedule.

**Talk Time** Identify times as you talk with students. For example, "In 15 minutes we will be cleaning up and going to recess." Include specific times and refer to a clock in your classroom: "It is now 10:15. In 15 minutes we will be cleaning up and going out to recess. That will be at 10:30."

**Timing 1 Hour** Set a timer to go off at 1-hour intervals. Choose a starting time and write both the analog time (use a clockface) and the digital time. When the timer rings, record the time using analog and digital times. At the end of the day, students make observations about the data collected. Initially you'll want to use whole and half hours as your starting points. Gradually you can use times that are 10 or 20 minutes after the hour and also appoint students to be in charge of the timer and of recording the times.

**Timing Other Intervals** Set a timer to go off at 15-minute intervals over a period of 2 hours. Begin at the hour and after the data have been collected, discuss with students what happened each time 15 minutes was added to the time (11:00, 11:15, 11:30, 11:45). You can also try this with 10-minute intervals.

**Home Schedule** Students make a schedule of important times at home. They can do this both for school days and for nonschool days. They should include both analog and digital times on their schedules. Later in the year they can use this schedule to see if they were really on time for things like dinner, piano lessons, or bedtime. They record the actual time that events happened and calculate how early or late they were. Students can illustrate their schedules.

**Comparing Schedules** Partners compare important times in their day, such as what time they eat dinner, go to bed, get up, leave for school. They can compare whether events are earlier or later, and some students might want to calculate how much earlier or later these events occur.

**Life Line** Students create a timeline of their life. They interview family members and collect information about important developmental milestones such as learning to walk, first word, first day of school, first lost tooth, and important family events. Students then record these events on a life line that is a representation of the first seven or eight years of their lives.

**Clock Data** Students collect data about the types of clocks they have in their home—digital or analog. They make a representation of these data and as a class compare their results.

- Are there more digital or analog clocks in your house?
- Is this true of our class set of data?
- How could we compare our individual data to a class set of data?

*Continued on next page*

**Time Collection** Students bring in things from home that have to do with time. Include digital and analog clocks as well as timers of various sorts. These items could be sorted and grouped in different ways. Some students may be interested in investigating different types of timepieces such as sundials, sand timers, and pendulums.

**How Long Is a Minute?** As you time 1 minute, students close their eyes and then raise their hands when they think a minute has gone by. Ask, "Is a minute longer or shorter than you imagined?" Repeat this activity or have students do this with partners. You can also do this activity with a half-minute.

**What Can You Do in a Minute?** When students are familiar with timing 1 minute, they work in pairs and collect data about things they can do in 1 minute. Brainstorm a list of events that students might try. Some ideas that second graders have suggested include writing their names; doing jumping jacks or sit-ups; hopping on one foot; saying the ABC's; snapping together interlocking cubes; writing certain numbers or letters (this is great practice for working on reversals); and drawing geometric shapes such as triangles, squares, or stars. Each student chooses four or five activities to do in 1 minute. Before they collect the data, they predict how many they can do in 1 minute. Then with partners they gather the data and compare.

**How Long Does It Take?** Using a stopwatch or a clock with a second hand, time how long it takes students to complete certain tasks such as lining up, giving out supplies, or cleaning up after math time. Emphasize doing these things in a responsible way. Students can take turns being "timekeepers."

**Stopwatches** Most second graders are fascinated by stopwatches. You will find that students come up with many ideas about what to time. If possible, acquire a stopwatch for your classroom. (Inexpensive ones are available through educational supply catalogs.) Having stopwatches available in the classroom allows students to teach each other about time and how to keep track of time.